

JALISE, L., AB; JALISE, L., AB

2. *Acacia* - *Acacia*, *Acacia* and *Acacia* (*Acacia*, *Acacia*, *Acacia*) - *Acacia* (*Acacia*) - *Acacia* (*Acacia*); *Acacia* - *Acacia* (*Acacia*, *Acacia*) - *Acacia* (*Acacia*) - *Acacia* (*Acacia*); *Acacia* (*Acacia*, *Acacia*) - *Acacia* (*Acacia*)

Ward, Architect, No. 4, 2<sup>nd</sup> floor, 100-102, 2<sup>nd</sup> floor,

"Altimeter - (radio, inc., type 1) is set at 1000 ft.  
I am ready to take off when you like."

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033910006-8

...  
...  
...  
...  
...

Yugoslavia  
...  
...

...  
...  
...  
...  
...

Information gathered  
from various sources  
...  
...  
...

Additional Annexes  
...  
...  
...

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033910006-8"

pearl oysters. p. 111. M. P. C. A. 1955. ("Pravnenje narskot  
ribe stva Jugoslavije") Belgrade.

Vol. 7, No. 5, May 1955

4. 207: West European Missions List, (WEM), Library of  
Congress, Vol. 4, No. 17, December 1955

MIHAILINOVIC, M.

The Portuguese oyster(Gryphaea angulata Link). p. 209. MORSKO RIBARSTVO.  
(Udruzenje morskog ribarstva Jugoslavije) Rijeka. Vol. 7, No. 8, Aug. 1955.

SOURCE: East European Accessions List, (EEAL) Library of Congress,  
Vol. 5, No. 8, Aug. 1956.

U.S. AIR FORCE, W.

IMAILINOVIC, ... Mechanized Cavalry Division, ...

Vcl. 7, No. 10, Oct. 1951.

MC. SPC. MIKAROVIC

AIR FORCE

Rijeka, Yugoslavia

To: East European Access (E), DIA, ... , 10/10/51

MIHAILOV, G., prof.; ANDREEV, Iv.; BELOVA, D.

Cerebral rheumatism; case in a child. Suvrem. med., Sofia  
6 no.11: 79-83 1955.

1. Iz II detska gradska bolnitsa pri SGNSDT (gl. lekar:  
P. Belopitov).  
(RHEUMATISM, in infant and child,  
cerebral. (Bul))  
(BRAIN, diseases,  
rheum. in child. (Bul))

STANCIU,L., dr.; BRANEA,I., dr.; TINCU, Lia, dr.; MIHAILOV,Ileana, dr.

Problems caused by some localizations and electrical abnormalities  
of myocardial infarct. Med. intern. (Bucur.) 17 no.1:101-107  
Ja '65

1. Lucrare efectuata in Serviciul de cardiologie, Clinica medi-  
cala, Timisoara.

MIHAJLOV, J.

"Gas Generators and Gas Turbines as Elements of Equipment of New Thermo-electric Power Plants." p. 286, (ELETROTEHNIČKA, Vol. 7, no. 4, Nov./Dec. 1954. Beograd, Yugoslavia.)

SO: Monthly List of East European Accessions, (SEAL), LC,  
Vol. 4, No. 5, May 1955, Uncl.

OGNYANOV, I. [Ognianov, I.]; MIHAILOV, M. [Mikhailov, M.]; BOURGOUDJIEV,  
Z. [Burgudzhiev, Z.]

Method for quantitative determination of germacrone in Geranium  
macrorrhizum L. oil. Doklady BAN 16 no.5:517-520 '63.

1. Institute of Organic Chemistry, Bulgarian Academy of Sciences,  
Sofia. Submitted by Academician D. Ivanov.

L 4362-66 EWT(m)/EPP(c)/EWP(j)/T/ETC(n) JAJ/RM/NW

ACC NR AP5028419

SOURCE CODE: BU/0011/65/018/001/0031/0034

AUTHOR: Mihailov, M.; Boudevska, H.

44

ORG: Institute of Organic Chemistry, Bulgarian Academy of Sciences

33

B

TITLE: Synthesis and polymerization<sup>144.55</sup> of polyestermethacrylates of terephthalic and furane-2,5-dicarboxylic acid

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 1, 1965, 31-34

TOPIC TAGS: organic synthetic process, polymerization, acrylic acid, terephthalic acid, dicarboxylic acid

ABSTRACT: [English article] The polyestermethacrylates investigated by A. A. Berlin et al. (Vysokomolekul. sozedeniya, 1, 1959, 951) were obtained primarily by means of the condensational telomerization of phthalic anhydride or aliphatic dicarboxylic acids with multivalence alcohols and methacrylic acid. As a number of experiments have shown, this method is inapplicable to the production of polyestermethacrylates from terephthalic and furane-2,5-dicarboxylic acid in a toluene medium. Attempts were therefore made to obtain end methacrylate terephthalic and furandicarboxylic hydroxyl-containing oligoesters (HOS). The authors describe in details two methods which they used for the synthesis of HOS and the subsequent polyestermethacrylate production by treating HOS with acid chloride of methacrylic acid in a

Card 1/2

L 4362-66

ACC NR: AP5028419

dioxane or benzene medium. O. G. Sel'skaya and Yu. M. Sevargin of the  
Chemical Physics Institute of the Soviet Academy of Science, Moscow, plotted  
the thermomechanical and heat resistance curves of the synthesized <sup>44,125</sup>  
polyestermethacrylates presented in this paper. A comprehensive discussion  
of all the results is also given. The work was submitted by B. Kourtev, Corresponding  
Member, 28 Aug 64. Orig. art. has: 2 figures. [JPRS] //

SUB CODE: OC, GC / SUBM DATE: 28Aug64 / Sov Ref: 002

MC  
Card 2/2

L 4363-66

ACC NR: AP4028420

SOURCE CODE: BU/0011/65/018/001/0035/0038  
*5*  
*B*

AUTHOR: Mihajlov, M.; Pancev, A.

ORG: Institute for Organic Chemistry of the Bulgarian Academy of Sciences (Institut fur organische Chemie an der Bulgarischen Akademie der Wissenschaften)

TITLE: Production of a mixture of  $\alpha$ -aminoacid hydrochlorides from gelatin and its esterification with butanol

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 1, 1965, 35-38

TOPIC TAGS: ester, amino acid, polymer protein, esterification

ABSTRACT: [German article] The polycondensation of  $\alpha$ -aminoacid esters under the influence of carbon dioxide and other catalysts has been lately the subject of very interesting studies (see, Mezhdunarodnyy simpozium po mikromolekuloynoy khimii SSSR, Doklady i avtoreferaty [International Symposium of Micromolecular Chemistry USSR, Contributions and Reports], M., 14-18, VI 1960, I Sec. p. 210). It represents a convenient method for the production of model-polypeptides of given composition and structure. The esters of the  $\alpha$ -aminoacids represent also useful raw material for the synthesis of other interesting polymers, and consequently, the authors present in this article a method for the production of  $\alpha$ -aminoacids from proteins and their esterification. Curves present the time dependence of the acid

Card 1/2

L 4363-66

ACC NR: AP5028420

number and the specific weight of the reacting mixture, of the degree of completion of the hydrolysis, of the changes in  $[\alpha]_{D}^{20}$ , and of the kinetics of water separation. The paper was presented by B. Kurtev, Corresponding Member, 28 Aug 64. Orig. art. has: 4 figures, 1 table [JPRS]

SUB CODE: OC, CC / SUBM DATE: 28Aug64 / OTH REF: 003 / Sov REF: 002

KC  
Card - 2/2

L 4304-66

ACC NR: AP5028421

SOURCE CODE: BU/0011/65/018/001/0039/0041

AUTHOR: Mihajlov, M.; Peeva, N.; Dirlikov, S.

7  
B

ORG: Institute of Organic Chemistry of the Bulgarian Academy of Sciences (Institut für organische Chemie an der Bulgarischen Akademie der Wissenschaften)

TITLE: Production of pyromucic acid from furfuraloxime

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 1, 1965, 39-41

TOPIC TAGS: carboxylic acid, organic amide, catalysis, pyromucic acid

ABSTRACT: German article! While hydrating the furfuraloxime over reduced copper at 200 °C, Sh. Yamaguchi (O. A., 1927, 75) was the first to observe the appearance of the amide of the pyromucic acid (some 6%). R. Paull noted subsequently (Bull soc. chim., 4, 1115) that furfuraloxime (and some other aldoximes with hydrogen) become converted into amides in presence of the Reney-Nickel-Catalyzer. Next, O. Bryson and F. Dwyer (O. A., 1941, 4768) showed that the 3-furaloxime becomes converted into the amide of the furan-3-carbonic acid whenever it is boiled in benzene with 5% of its complex nickel salt -  $\text{Ni}(\text{ON}-\text{CH}_2\text{H}_4\text{O})_4\text{H}_2$ . Consequently, the authors proceeded to study first the catalytic action of the Chugayev reagent, and then investigated the feasibility of a direct catalytic action of anorganic nickel salts. The

Card 1/2

L 4364-66

ACC NR: AP5028421

results turned out positive and are tabulated together with data about the solvent used and other conditions of the reaction. The pyromuic acid was best isolated from water and purified by recrystallization. The proposed method for the production of pyromuic acid is both economical and suitable for industrial application. The work was presented by B. Kurtev, Corresponding Member, 28 Aug 64. Orig. art. has: 1 table. [JPRS]

SUB CODE: OC, GC / SUBM DATE: 28Aug64 / OTH REF: 0033 / OMR REF: 003

Na  
Card 2/2

L 4366-66 EWP(j) RM

ACC NR: AP5028422

SOURCE CODE: BU/0011/65/018/001/0043/0046

AUTHOR: Mihailov, M.; Gerdjikova, S.

20  
B

ORG: Institute of Organic Chemistry, Bulgarian Academy of Science

TITLE: Varnishes from epoxidized ligninphenol resins

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 1, 1965, 43-46

TOPIC TAGS: epoxy plastic, resin, varnish

ABSTRACT: Ligninphenol epoxy resins (LPE) were first produced in 1962 by one of the authors (M. Mihailov, Ch. Budevska, Compt. rend. Acad. bulg. Sci., 15, 1962, No 2, 155). The present article discusses the suitability of these resins as binding substances for varnishes. It describes the production of such a varnish, the production of adducts from diethylenetriamine, modifications of the LPE, and the preparation of coatings. Three tables describe in detail the composition and physico-mechanical properties of various coatings. The work was presented by B. Kourtev, Corresponding Member, 28 Aug 64. Orig. art. has: 1 figure, 3 tables. [JPRS]

SUB CODE: MT, OC / SUBM DATE: 28Aug64 / ORIG REF: 001

Card 1/1 KC

L 00163-66 EPF(c)/EWP(j)/ET(m)/T RPL JAJ/RM/WW  
ACCESSION NR: AP5025550

+4,55 +4,55 +4,55 BU/0011/65/018/002/0121/0124

AUTHOR: Mihailov, M.; Boudevska, H.; Korolev, G.; Zhiltsova, L.

+4,55 43  
37

TITLE: Polymerization kinetics in blocks of polyestermethacrylates based on  $\beta$ -terephthalic and furane-2, 5-dicarboxylic acid

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 2, 1965, 121-124

TOPIC TAGS: methacrylate plastic, polyester plastic, carboxylic acid, polymerization, polymerization kinetics

ABSTRACT: G. V. Korolev et al. (see, e.g., Vysokomol. sovremeneniya, 4, 1962, No 11, 1663) have discovered a number of important laws of steric polymerization while investigating the polyestermethacrylates (PEM) synthesized by them by means of the thermometric method. A further development of notions about the relation between the structure of the polymerizing polyfunctional oligoesters and their responsiveness and properties makes it necessary to study the character of steric polymerization with new PEM types and other oligomers. In this connection the authors investigated the polymerization kinetics of PEM of terephthalic and furane-2,5-dicarboxylic acid (M. Mihailov, H. Boudevska, Compt. rend. Acad. bulg. Sci., 18, No 1, 1965)

Card 1/2

L 00163-66  
ACCESSION NR: AP5025550

synthesized earlier. The thermometric method which is most suitable for steric polymerization was used for this purpose (G. V. Korolev et. al., Vysokomol. soyedineniya, 1, 1959, No 1, 1396). Results are presented in the form of detailed graphs. Orig. art. has: 4 graphs.

44,55

ASSOCIATION: Institute of Chemical Physics, Academy of Science, SSSR; Institute of Organic Chemistry, Bulgarian Academy of Science

44,55

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, GC

NR REF Sov: 003

OTHER: 003

JPRS

KC  
Card 2/2.

ACC NR: AP6031804

SOURCE CODE: BU/0011/65/018/009/0829/0832

AUTHOR: Mihailov, M.; Gerdjikova, S.

ORG: Institute of Organic Chemistry, BAN,

TITLE: Production of liquid epoxy resins and varnish from sulfate lignin, phenol, and epichlorhydrin

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 3, 1965, 229-231

TOPIC TAGS: resin, varnish, sulfate, phenol, chlorhydrin, chemical production

ABSTRACT: The solid epoxy ligninphenol resins synthesized in 1962 by one of the authors contains from 15 to 20 p. c. of epoxy groups and soften at 75 to 78° (M. Mihailov, Ch. Budevska, Compt. rend. Acad. bulg. Sci., 15, 1962, No. 2, 155-158). Varnish was obtained from them through modification according to various methods (M. Mihailov, S. Gerdhikov, Ibid., 18, 1965, No. 1, 43). Presently, experiments were made to obtain liquid epoxy resins directly through the epoxidation of a phenol mixture with ligninphenol resin or with sulfate lignin. Epoxidation with epichlorhydrin was effected according to the method employed in obtaining solid epoxy ligninphenol resins. Other experiments aimed at finding ways and means to produce liquid epoxy resins from phenol and sulfate lignin in a still more simplified manner. The paper presents detailed description of the procedures used and presents the results in the form of tables. This paper was presented by Corresponding Member BAN B. Kourtev on 31 May 1965. Orig. art. has: 2 tables. [Orig. art. in Eng.] [JPRS: 34,518]

SUB CODE: 07 / SUBM DATE: 31May65 / ORIG REF: 002 / OTH REF: 001

Card 1/1 → 0

09/9 035!

L 05721-67 S7(m)/EM(1)/<sup>1</sup> IJL(c) RM  
ACC NR: AP6031805

SOURCE CODE: BU/0011/65/018/009/0833/0836

AUTHOR: Mihailov, M.; Gerdjikova, S.; Borisov, G.  
ORG: Institute of Organic Chemistry, BAN

TITLE: Production of phosphorus-containing polyestermethacrylates<sup>1</sup>

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 9, 1965, 833-836

TOPIC TAGS: phosphorus compound, polymer chemistry, flammability, esterification, oligomer

ABSTRACT: Some of the existing synthesized polyester-methacrylates have shown very good binding properties in the case of glass, plastics and film-forming substances and are commercially produced in the USSR. However, like most organic polymers, they suffer from the major drawback of being inflammable. Injections of phosphoric atoms or phosphorus-containing groups tend to reduce greatly this defect. Consequently, the authors investigated ways for synthesizing phosphorus-containing polyestermethacrylates (PEM) of varying structures. The present paper gives detailed description of PEM production by re-esterification of the diethylester of the benzylphosphonic acid with ethylene-glycol and a subsequent methacylation of the hydroxyl-containing oligomers. The polymerization of the synthesized benzylphosphonate PEM and the properties of the polymers obtained from such polymers is the subject of a separate study, the results of which will be published later.

This paper was presented by Corresponding Member BAN B. Kourtev on 31 May 1965.

Orig. art. in Eng. / JPRS: 34,518

SUB CODE: 07 / SUBM DATE: 31May65 / SOV REF: 005 / OTH REF: 002

Card 1/1 *swd*

0919 - 0552

ACC NR: AP7005143 (N) SOURCE CODE: BU/0011/66/019/009/0799/0802

AUTHOR: Borissov, G.; Nikolinski, P.; Grigorova, M.; Mihailov, M.

ORG: Institute of Organic Chemistry, Bulgarian Academy of Sciences

TITLE: Phosphorus- and sulfur-containing polyurethanes

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 19, no. 9, 1966, 799-802

TOPIC TAGS: polyurethane, oligomer, polymer, isocyanate, sulfide, esterification, precipitation, condensation, adhesion

ABSTRACT: A series of experiments were conducted to produce phosphorus- and sulfur-containing polyurethanes from oligomers by treating them with diisocyanates. Oligomers with active hydrogen atoms in their molecule were obtained by interruption of the reaction of re-esterification of diethylphosphite with hydroxyethylpolysulphide. The experiments were carried out with the aid of a solvent. The substances used were: freshly distilled diethylphosphite; diethylhydroxyethylpolysulphide synthetized by condensation of two-sodium ethylsulphide with ethylenechlorhydrin; and toluylenedissocyanate, tetrachloroethylene, etc.

Card 1/2

ACC NR: APT005143

a solvent. Different ratios between the *p,p'*-phenylene oligomer and diisocyanate were used. Solid polymers resulted when the diisocyanate was equimolecular to the oligomer or was in excess. If the diisocyanate was present in a solvent from a mixture of bis- $\beta$ -hydroxyethyliponitrile and toluylene diisocyanate with toluylenediisocyanate. The results of the experiments show no dependence of the type of polymer on the ratio between the diisocyanate and the oligomer. The properties of the polymers are similar to those obtained by the same method, but the viscosity of the polymer solution is lower. The adhesion to metal surfaces showed that the products have self-adhesive properties and good adhesion. The paper was presented by B. Kourtev, Co-responding Member of BAN, 3 May 1966. Orig. art. has: 1 diagram, 4 tables, and 2 formulas.

SUB CODE: 11/SUBM DATE: 03May66/ORIG REF: 002/OTH RE : 002/ [KP]

Card 2/2

MIHAILOV, L.  
Svetozar (Ljubomir); Given Name

Country: Yugoslavia

Role: Author; not given

Affiliation: not given

Sources: Belgrade, Veterinarski glasnik, No 8, 1961, pp 681-683.

Text: "Poisoning of Horses with Sinapis Arvensis."

BULGARIA

P. MIHALOV and N. PEROVA, Bulgarian-Venerealologic Scientific Research Institute (Naucho-issledovatel'ski bol'sho-venerologicheski Institut)  
Director (direktor) Prof. . PCINRI, Sofia.

Current Diagnostic Methods in Allergy.

Sofia, Sovremenna Meditsina, Vol 1., no 11, 1962, pp. 46-50.

Abstract [English summary modified]: Brief description and discussion of a number of relatively new tests used mainly to determine sensitivity to various drugs. Serum histamine, agar gel diffusion techniques, immunoelectrophoresis, nephelometry, thrombocyte-to-leukocyte index, intradermal tests. Forty-five western references.

1/1

USUNOFF, G.; ATZEV, E.; MISHAILOV, S.

Changes in cerebral electric activity of cats in case of  
certain physical and chemical effects on carotid sinus.  
Dokl. Bolg. akad. nauk 17 no.1:209-212 '64

KUZNETOV, V.I. [Kuznetsov, V.I.]; SAVVIN, S.B.; MIHAILOV, V.A. [Mikhaylov, V.A.]

Realizations in the field of the analytic chemistry of uranium, thorium, and plutonium. Analele chimie 15 no.4:74-126 O-D '60.  
(EEAI 10:3)

(Uranium) (Thorium) (Plutonium)

MICHAYLOV, V.P. [Mihailov, V.P.]; GEORGIYEV, I. [Georgiev, I.] KHUSSAR Yu.  
[Khussar, Yu.]

Apropos of the proliferation of lymphoid organs following the  
exposure to ionizing radiations. Folia med. (Plovdiv) 6 no. 2  
71-76 '64

1. Institut eksperimental'noy meditsiny AMN SSSR, Leningrad.  
Laboratoriya eksperimental'noy gistologii (zav. - prof. dr.  
V.P.Michaylov) i Vysshiy meditsinskiy institut imeni Iv.P.Pavlova  
g. Plovdiv, Bulgaria, Kafedra gistologii i embriologii (Rukovoditel': dotsent I. Georgiyev [I.Georgiev]).

L 15600-66  
ACC NR: AP6008209

SOURCE: BU/0011/65/018/004/0339/0342

AUTHOR: Trendafelov, D.; Mihailova, D.; Paskalev, N.

31 B

ORG: Pharmaceutic Institute, Sofia

TITLE: Investigation of the system In<sup>3+</sup>-Na<sup>+</sup>(K<sup>+</sup>)-OH<sup>-</sup>-Cl<sup>-</sup>-H<sub>2</sub>O

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 4, 1965, 339-342

TOPIC TAGS: indium compound, physical chemistry property, solubility, ionization

ABSTRACT: The problem of the composition, properties and, in particular, solubility of basic metal salts that do not dissolve easily cannot be satisfactorily solved by means of preparations or by the classical methods of physico-chemical analysis. The difficulties stem primarily from the circumstance that these basic salts are obtained as exceedingly fine dispersed precipitates and that it is not possible to isolate them as preparations. The composition and properties of a basic salt undoubtedly depend on the composition of the system in which the salt is precipitated. The authors assumed that the heterogeneous system, precipitate of basic salt

Card 1/3

2

L 13600-66  
ACC NR: AP6008209

- saturated solution, cannot be completely characterized by the activities of the metal cations participating in the composition of the basic hydroxide, hydroxyl and acid anions in the sense that the cation which is introduced with a 'neutral electrolyte' will produce a specific effect on these activities. Inasmuch as the heterogeneous system can be studied when introducing a 'neutral electrolyte' with a selected cation, the data obtained will characterize precisely the action of this cation, other conditions being the same. One may also assume from more general considerations that the precipitate obtained at first should have a composition close to  $\text{In}(\text{OH})\text{Cl}_2$ , i.e., a basic salt richest in  $\text{Cl}^-$ . Proceeding from the above assumptions, the systems  $\text{In}^{3+}-\text{Na}^+-\text{Cl}^--\text{OH}^--\text{H}_2\text{O}$  and  $\text{In}^{3+}-\text{K}^+-\text{Cl}^--\text{OH}^--\text{H}_2\text{O}$  were experimentally investigated by applying the method given in paper by N. V. Akselrud and V. B. Spivakovskiy (ZhNKh, 1958, 1958, No 8, 1748). Four series of indium trichloride solutions were prepared by dissolving the metal indium (purity 99.95 p. c.) in hydrochloric acid p. a. (Merck). The study of the epures of orthogonal projections of isoconcentrations of the above mentioned heterogeneous systems five minutes after their preparations show that the curves differ radically in character depending on the nature of the cation of the 'neutral electrolyte' used. The effect produced by the cations of the other metals belonging to the alkali

Card 2/3

L-15600-66  
ACC NR: AP6004209

group is another problem warranting attention. The paper was submitted by N. Penchev, Corresponding Member Bulgarian Academy of Sciences, 14 December 1964. Orig. art. has 4 figures and 2 formulas. [JPRS] O

SUB CODE: 07 / SUBM DATE: none / OTH REF: 001 / Sov REF: 009

LB  
Card 3/3

ESKIN, I.A.; MIHAJOVA, N.V.

Reactions of the pituitary gland and adrenal cortex in stress in aged rats and the role of the nervous system in their development.  
Stud. cercet. endocr. 13 no.6:729-738 '62.

(PITUITARY GLAND) (ADRENAL CORTEX) (STRESS)  
(AGING) (NERVOUS SYSTEM) (CORTICOTROPIN)

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033910006-8

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033910006-8"

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033910006-8

MIRAFLORES, A.

The 12th International Conference of the Americas, 1970.  
(Buenos Aires, Argentina, 1970, November, 1970)

See: Monthly List of Recent Publications. (Annals), Vol. 1, No. 1, January 1971.

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033910006-8"

MIRAILLOVIC, D.

TECHNOLOGY

PERIODICALS

MIRAILLOVIC, D. Control of gases in petroleum pumping. p.91.  
No. 3, 1955. Published 1955.

Monthly List of Eastern European Accessions (EMAI) Vol. 11, No. 2  
April 1959 Unclass.

Milankovic, Dobrivoje

Milankovic, Dobrivoje. Sur les directions des mouvements instantanés relatifs dans le problème d'entre-choc de trois corps de la mécanique céleste. Bull. Soc. Math. Phys. Serbie 1, 11-16 (1949). (Serbian, Russian and French summaries)

Using his vectorial version of Sundman's and Block's treatment of the three-body problem, the author proves that Milankovitch's result in a special case, according to which the instantaneous directions of the relative motions of the three bodies intersect in one point, is valid also in the "collision" case. L. Jacchia (Cambridge, Mass.)

(MW)

7/7

Source: Mathematical Reviews, 1950, Vol. 11 No. 6

Milankovitch, D. Les intégrales premières dans le problème d'interaction de trois corps. Bull. Soc. Math. Serbie 1, 45-61 (1949). (Serbian, Russian and French summaries)

This paper is the expanded vectorial treatment of a problem which was investigated by Sundman and Bloch using scalar methods. It follows the lead of Milankovitch, who showed that the coincidence of the gravitational pole (the center of attraction) with the center of inertia implies the existence of exact solutions in the general three-body problem. Much of the analysis is made possible by the use of the independent variable  $r = C(4 - t)^{1/2}$  in place of the time  $t$ ;  $C$  is a constant which is positive or negative according to whether the motion of the three bodies is centripetal or centrifugal. Starting from Sundman's result that the projections of the radii vectors are proportional to  $r^2$ , the author shows that the vectors representing the forces are directed toward the center of inertia and thus, using Milankovitch's theorem, is able to conclude that the positions of the bodies correspond to one of Lagrange's configurations, a result found also by Sundman. Bloch's results in the cases of the equilateral and linear Lagrangian configurations are also reproduced using the same method.

L. Lacchia (Cambridge, Mass.).

Source: Mathematical Reviews, 1950 Vol 11 No. 6

MILANKOVITCH, D.: The First Integrals in the General Three-Body Problem

MTHAILOVITCH D-

Mihailovitch, Dobrivoje. Bemerkung über das Jacobische Integral im eingeschränkten Dreikörperproblem für den Zufall der elliptischen Bahn des störenden Körpers. Bull. Soc. Math. Phys. Serbie 8, nos. 3-4, 61-65 (1931). (Serbo-Croatian. German summary)

The Jacobian integral for the Wilkins case of the restricted three-body problem [Festschrift für H. von Seeliger, Springer, Berlin, 1924, pp. 153-168] is derived by vector methods instead of conventional methods. E. Lámanis

MIRAILCOVIC, DUBRIVCJE

Mathematics

Math

Mihailović, Dobrije. L'allegato all'analisi qualitativa  
della rotazione diurna nel problema di due corpi. Bull.  
Soc. Math. Phys. Serbie 4, no. 3-4, 49-52 (1952). (Serbo-  
Croatian, Italian summary)

Let  $\mathbf{r}$  be the position vector of the particle  $A$  of mass  $m_1$   
relative to the particle  $B$  of mass  $m_2$ , and assume with  
Batyrev [Akad. Nauk SSSR. Astr. Zurnal 26, 56-59 (1949);  
these Rev. 10, 577] that the total mass  $M = m_1 + m_2$  of the  
system varies according to the law  $M = 1/(1+\alpha t)$ ,  $\alpha > 0$ .  
If one introduces the position vector  $\mathbf{r}'$  of the auxiliary  
particle  $P$  and the pseudo-time  $t'$ , defined by  $t = s/(1+\alpha t)$   
and  $r = 1/\alpha(1+\alpha t)$ , then the equation of motion of  $A$  reduces  
to that of  $P$  in the classical two-body problem. The author  
shows that (i) the areal velocity of  $P$  along a conic section  
and that of  $A$  along the corresponding spiral-like orbit are  
equal in absolute values, and (ii) the senses of description  
of the two corresponding orbits are opposite.

E. Leimanis (Vancouver, B. C.).

MIHAILOVIC, D.

✓ 237. Mihailovic, D., On a general method for reducing the problem of two bodies with variable masses to the two-body problem in celestial mechanics (in Serbo-Croatian, with Italian summary), *Boll. Soc. Mat. Phys. Serbia* 5, 1/2, 67-76, 1953.

Author generalizes the method of Balytov [Akad. Nauk SSSR Izdr. Zhurnal 26, 60-69, 1940] for reducing the problem of two bodies with variable masses to the classical two-body problem in celestial mechanics.

Using two theorems of Dulac [J. Math. 9, 53-66, 1932] and the fact that the total mass  $M = m_1 + m_2 = f(t) \rightarrow 0$  as  $t \rightarrow \infty$ , author concludes that the orbit is neither periodic nor asymptotic in the finite region of motion; moreover, it is impossible to find initial conditions for which the trajectory approaches an ellipse or the straight orbit.

The qualitative analysis of Balytov concerning the shape of the trajectories is confirmed. R. Leimkufer, Canada

MS 595

MIHAJLOVIC, DOBRIVOJE,

Mihailović, Dobrivoje. Application of vector elements to the problem of two bodies with variable sum of masses. Bull. Soc. Math. Phys. Serbie 5, pp. 3-4, 93-109 (1953). (Serbo-Croatian, English summary)

The vector elements of  $P$  [see the preceding review] used by the author are those of Milanković [Acad. Serbe. Bull. Acad. Sci. Mat. Nat. A. no. 6, 1-70 (1939); these Rev. 11, 407]: (I) the constant  $C$  in the integral of the areal velocity; (II) the constant  $D$  in Hamilton's integral, and (III) the constant  $T$  in Kepler's integral—all together six independent scalar constants since  $C \cdot D = 0$  [cf. also E. A. Milne, Vectorial mechanics, Interscience, New York, 1948, pp. 235-241; these Rev. 10, 48]. Milanković applied this system of elements to elliptic motion only; in this paper the author extends the method to hyperbolic and parabolic motions.

E. Leimanis (Vancouver, B. C.).

Mihailović, Dobrivoje

Mihailović, Dobrivoje. Beitrag zur Untersuchung eines  
partiellen Kepierianer Bewegung im Widerstandsmittel.  
Bull. Soc. Math. Phys. Serbie 6 (1954), 102-107.

(Serbo-Croatian, German summary)

G. N. Dubosin (Astr. Z. 9 (1932), 20-26) considered a particular case of the motion of a particle in a resisting medium. The author treats the same problem as a perturbed Kepierian motion and gives a geometrical interpretation of the Dubosin quasi-integral.

E. Leimanis (Vancouver, B.C.).

*[Handwritten signature]*

Mihailovic, D.

An application of disordered theory equations on Radzievsky's problem of three bodies. p. 223

CROATICA CHEMICA ACTA. (Hrvatsko kemijsko drustvo, Sveuciliste u Zagrebu i Hrvatsko prirdoslovno drustvo) Zagreb, Yugoslavia. Vol 7, no. 3/4, 1955

Monthly list of East European Accessions (EAAI) LC, Vol. 8, no. 8, Aug. 1959

Uncl.

Mihailovic, D.

Remarks on the application of vector elements in the theory of secular perturbations. p. 229.

CROATICA CHEMICA ACTA. (Hrvatsko kemijsko drustvo, Sveuciliste u Zagrebu i Hrvatsko prirodoslovno drustvo) Zagreb, Yugoslavia. Vol. 7, no. 3/4, 1955.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, no. 8, Aug. 1959

Uncl.

Generalization of Some Results in Two-Bodies Problem With Variable Mass-Sum

16

2

1-FW

Mihailović, Dobrije, Verallgemeinerung einiger Ergebnisse im Zweikörperproblem mit veränderlicher Massensumme. Bull. Soc. Math. Phys. Serbie 8 (1956), 195-198. (Serbo-Croatian. German summary)

The author establishes a relation between the areal velocities in the classical problem of two bodies and the corresponding problem with a general law for the variation

of the sum of masses. This law is the author's generalization [same Bull. 5 (1953), no. 1-2, 67-76; MR 16, 653] of Batyrev's law of variation.

T. P. Andelic (Belgrade).

About the Energy Integral in Two-Bodies Problem With Variable Mass Sum

16

Mihailović, Dobrivoje. Über das Energiedifferential im Zweikörperproblem mit veränderlicher Massensumme.  
Bull. Soc. Math. Phys. Serbie 8 (1956), 199-202.  
(Serbo-Croatian. German summary)

A. A. Batyrev [Astr. Z. 26 (1949), 56-59; MR 10, 577] has, by a suitable substitution, reduced the problem of two bodies, whose total mass  $M = m_1 + m_2$  varies according to the law

$$M = M_0 / (1 + \alpha t),$$

where  $\alpha$  is a positive constant, to the classical problem with invariable masses.

In this paper the author determines a relation between the integral of energy for the problem with variable sum of masses and the integral of energy when masses are invariable. He uses for that purpose Batyrev's transformation as well as a relation between the velocities in the original and transformed motion, which was deduced by the author himself elsewhere [Bull. Soc. Math. Phys. Serbie 4 (1952), no. 3-4, 49-52; MR 15, 903].

T. P. Andelic (Belgrade).

2

1-FW

JOSIPOVIC, V.; PAPO,I.; CURCIC,M.; FAJGELJ,I.; LUKACEVIC,D.; MIHAJLOVIC,D.

Myxoma of the right atrium successfully treated by a surgical method. Acta chir. Jugosl. 10 no.3:261-272 '63

I. Interna klinika B Medicinskog fakulteta u Beogradu  
(Upravnik: prof.dr. R.Berović), Hirurska klinika (Nacelnik:  
gen. prof. dr. I. Papo) i Institut za radiologiju (Nacelnik:  
puk. prof. dr. M. Curcic) Vojnomedicinske akademije u Beogradu.

S

BERVAR, Marijan, sanitetski potpukovnik dr; MIHAILOVIC, Dragoljub, sanitetski potpukovnik dr; JABLNOV, Jovan, sanitetski kapetan I kl. dr

How may the consequences of an accidental intra-arterial injection of barbiturate be alleviated? Vojnogranit. pregl. 19 no.9:603-607 S '62.

1. Vojnomedicinska Akademija u Beogradu, Klinika za hirurske bolesti.  
(BARBITURATE TOXICOLOGY) (GANGRENE)

P'SCEVIC, Stanislav, marineter, pu. mre, dr.; P'ČEĆIĆ, Slobodan, sanitetski pukovnik, dr.; KRAŠUJEVIĆ, Dragoljub, sanitetski pučnički, dr.; KRASUJEVIĆ, Dragoljub, sanitetski kapetan, dr.

A case of combined injuries with severe hemorrhage. Vojnačen†.  
pregl. 21 no.4253-256 - Ap 164

1. Vojnomedicinska akademija u Beogradu, Klinika za vratnikoboljeti.

MIHAJLOVIC, Dusan M., dipl. inz.

Some problems of diesel traction on Yugoslav Railroads.  
Zeleznice Jug 20 no.5:15-20 My'64

MIHAILOVIC, J.

Notes on the find of the main splenial bone of the lower mandible of  
the ganoid fish Microdon elegans Ag. in the vicinity of Belgrade, p. 173;  
GLASNIK. BULLETIN. SERIJA A: MINERALOGIJA, GEOLOGIJA, PALEONTOLOGIJA.  
Beograd; Vol. 6, no. 2, 1955 (publi.hed 1956).

SOURCE: East European Accessions List (EEAL), Library of Congress,  
Vol. 5, No. 12, December 1956.

MIHAJLOVIC, Jelenko, 18:9-

The catastrophic earthquakes of 1971 in Vojvodina and the seismicity of the Baranja region. Beograd, Starje. "Slove" 1972. M.C. p. Srpska kraljevska akademija, Belgrade. Posebna izdanja, knj. 113)

MIHAILOVIC, JELENKO

GEOGRAPHY & GEOLOGY

MIHAILOVIC, JELENKO. Seizmicki karakter i trusne katastrofe naseg juznog primorja od Stona do Ulcinja. Beograd, Stampa Jugoslovenskog stamparskog preduzeca, 1947. 149 p. )Srpska akademija nauka. Posebna izdanja, knj. 140) CtY

Monthly List of East European Accessions (EE&I)  
April 1959 Unclass.

A. KELVIN, et al., /

Meteoritics, etc.)

Science

Introduction, p. 5, Keniaire, "Use of the  
seismograph," Vol. 2, 1948.

Last European Accesions, 1948, "Report of Congress,  
Vol. 1, No. 1, December 1948.

Science

Milovice, 1960

Czechoslovakia

Incidence

Seizmicki obrni skrzinny na tvarne. Vzhledem  
k leizmicki zavod, lvi. L. J. Savovi seiz-  
micki zavod. Fotografie, o. 1) <sup>Geometric</sup>  
movements of the seismic shock of the  
of Czechoslovakia. Photo summary. 1960, news  
lvi. L. J. Savo<sup>7</sup>

Last year's discussions, p. 1. Number 10, 1960,  
21, 1960, April 1960.

MIHAILOVIC, Krunislav, dipl. inz. (Beograd)

Modern methods in evaluating the accuracy of finally adopted results. Geod list 18 no.4/68118-138 Ap-Je '64

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033910006-8

:234-244 0-1

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033910006-8"

MILANOVIĆ, Ermislav, dipl. inž. (Bengrad)

Algorithmization of iterative in determining shortest paths  
in a trigonometric network of the 1st order. (see list  
18 no. 7/9:181-188 Jl-3 '64.

0916 0972

L 34502-66 EMT(1)  
ACC NR AP6024797

SOURCE CODE: YU/0006/65/000/04-/0113/0123

38  
B

AUTHOR: Mihailovic, Krunislav (Graduate engineer; Belgrade)

ORG: none

TITLE: Determination of the degree of correlational dependence of random quantities

SOURCE: Geodetski list, no. 4-6, 1965, 113-123

TOPIC TAGS: stochastic process, geodesy

ABSTRACT: In geodetic work, random quantities or random errors are often considered independent although in many situations this is not the case. The present theoretical investigation tries to establish the degree of dependence between random quantities as the basic element during the estimates of accuracy in the case of correlated quantities. During geodetic measurements the stochastic dependence seems to be quite universal since the degree of dependence is subject to wide variations within the limits imposed by the functional dependence of the random quantities under study. In geodesy one encounters mostly a linear stochastic relationship (correlative dependence); on the other hand, V. Vranic showed (Verojatnost i statistika /Probability and statistics/, Zagreb, 1958, pp 160-162) that random quantities belonging to normal distributions are linearly dependent. Since, up to smaller order quantities, the errors in measurements belong to normal distribution, the correlative dependence is of special importance in geodesy, and the author limits his discussion to this type of dependence only. Orig. art. has: 2 figures, 16 formulas and 2 tables. [JPRS: 32,859]

SUB CODE: 08, 12 / SUBM DATE: none / ORIG REF: 005 / OTH REF: 003

MIHAJLOVIC, L.

SAHOVIC, K.; ORESCANIN, B.; BATA, A.; MIHAJLOVIC, L.; DRASKOVIĆ, M.;  
DIMITRIJEVIĆ, K.; STOJANOVIC, B.

Observations on the behavior of cardiovascular system and respiration  
in animals in hypothermia, with special reference to the functional  
variations during exsanguination and consecutive transfusion. Glas  
Srpske akad. nauka, odelj. med. no.8:31-52 1953.

1. Institut za patolosku fiziologiju Medicinskog fakulteta u  
Beogradu; primljeno na VII skupu Odeljenja Medicinskih nauka  
14.V.1953 g.

(HEMORRHAGE, exper.

\*eff. on cardiovasc. system & resp. in animals in hypothermia.  
eff. of consecutive transfusion)

(CARDIOVASCULAR SYSTEM, physiol.

\*eff. of exper. exsanguination & consecutive blood trans-  
fusion in hypothermia in dogs)

(RESPIRATION, physiol.

\*eff. of exper. exsanguination & consecutive blood trans-  
fusion in hypothermia in dogs)

(BODY TEMPERATURE

\*hypothermia, exper., eff. of exper. exsanguination &  
consecutive blood transfusion on cardiovasc. & resp.  
system in dogs)

(BLOOD TRANSFUSION, exper.

\*eff. on cardiovasc. & resp. system after exper.  
exsanguination in hypothermia in dogs)

MIHALLOVIC, L.; DRASKOCI, M.

Relation between potassium and carbohydrate metabolism; effect of intravenous injection of adrenaline. Glas Srpske akad. nauka, odelj. med. no.8:135-152 1953.

1. Institut za patolosku fisiologiju Medicinskog fakulteta u Beogradu; primljeno za na X skupu Odjeljenja medicinskih nauka 24. IX. 1953 god.

(EPINEPHRINE, eff.

\*on potassium & carbohydrate metab. on rabbits,  
intravenous inject.)

(POTASSIUM, metab.

\*eff. of epinephrine in rabbits, intravenous inject.)

(CARBOHYDRATES, metab.

\*eff. of epinephrine in rabbits, intravenous inject.)

MIHAJLOVIC, L.

SAHOVIC, K.; ORESCANIN, B.; MIHAJLOVIC, L.; BATA, A.; DIMITRIJEVIC, K.;  
TOJANOVIC, B.; DRASKOVIĆ, M.

Biochemical changes and variations of the blood picture in animals  
in hypothermia; effect of exsanguination and consecutive transfusion.  
Glas Srpske akad. nauka, odelj. med. no.8:153-182 1953.

1. Institut za patolosku fiziologiju Medicinskog fakulteta u Beogradu;  
primljeno na X skupu Odeljenja medicinskih nauka 24.IX.1953 god.

(BLOOD TRANSFUSION, exper.

\*eff. on biochem. changes & blood picture in hypothermia in rats)

(BODY TEMPERATURE,

\*hypothermia, exper., eff. on blood picture & biochem. changes  
after exsanguination & consecutive blood transfusion in rats)

(HEMORRHAGE, exper.

\*eff. on blood picture & biochem. changes in rats in hypo-  
thermia, eff. of consecutive blood transfusion)

(BLOOD

\*picture, eff. of exsanguination & consecutive blood  
transfusion in hypothermia in rats)

DRASKOVIĆ, M.; MIHAJLOVIĆ, Lj.

Effect of intravenous glucose on potassium level in blood in normal and hypoglycemic animal. Glas srpske akad. nauka, odjelj med. 211 no.7:33-45 1953.

1. Prinljeno na XVIII skupu Odjelj. med. nauka 18 XII 1952 god.  
(HYPOGLYCEMIA, exper.  
eff. of intravenous glucose on potassium in blood in  
rabbits)  
(GLUCOSE, eff.  
on potassium in blood in normal & hypoglycemic rabbits)  
(BLOOD  
potassium, eff. of intravenous glucose in normal &  
hypoglycemic rabbits)  
(POTASSIUM, in blood  
eff. of intravenous glucose in normal & hypoglycemic  
rabbits)

Glas srpske akad. nauka, odjelj med. 211 no.7:33-45 1953  
nauka

M. Chakovich, L.

Rept

Distribution of iodine and phosphorus in various parts of  
the central nervous system. Y. Chakovich, V. Amure-  
levitch, I. Mikhalevich, T. Mikhalevich and A. Bata  
(School med., Belorussia). Rev. fiziol. fiziol. et comparee  
55: 131-8 (1955). Following intraperitoneal injection of a  
soln. of radioactive phosphate into the dog, accumulation of  
 $^{32}P$  was noted in hypophysis, and to a lesser extent in tractus  
opticus, hypothalamus, medulla oblongata and bulbus  
osfectorius. Induced uremia does not materially change the  
distribution, but proportionally decreases amounts being  
fixed. Following intravenous injection,  $^{131}I$  mostly ac-  
cumulates in hypophysis, the peak being reached within 6  
hrs. 17 references. J. Dufrenoy

(4)

JPM KMS

SAHOVIC, K.; DRASKOCI, M.; MIHAILOVIC, Lj.

Investigations on potassium metabolism in the central nervous system; distribution of potassium in the brain, cerebellum and spinal cord. Glas. Srpske akad.nauka, odelj.med. 215 no.9:179-185 1955.

(CENTRAL NERVOUS SYSTEM, metabolism,  
potassium)  
(POTASSIUM, metabolism,  
CNS)

SAHOVIC, K.; MIHAJLOVIC, LJ; DRASKOVIĆ, M.

Investigation on potassium metabolism in the central nervous system; distribution of potassium in the brain, cerebellum, and spinal cord in tuberculous meningitis. Glas.Srpske akad.mauka, odelj.med. 215 no.9:187-194 1955.

(TUBERCULOSIS, MENINGEAL, metabolism in,  
potassium in CNS)

(POTASSIUM, metabolism,

CNS, in tuberc.,meningeal)

(CENTRAL NERVOUS SYSTEM, metabolism,  
potassium, in tuberc., meningeal)

SAHOVIC, K; DRASKOCI, M.; MIHAILOVIC, Lj.

Investigations on potassium metabolism in the central nervous system; distribution of potassium in the brain, cerebellum, and spinal cord in uremia. Glas.Srpske akad.nauka, odelj.med. 215 no.9:195-203 1955.

1. Institut de Physiopathologie de la Faculte de Medecine de Beograd.

(UREMIA, metabolism, in potassium in CNS)

(CENTRAL NERVOUS SYSTEM, metabolism, potassium, in uremia)

(POTASSIUM, metabolism, CNS, in uremia)

SANOVIC, K.; MIHAJLOVIC, LJ; DRASKOCI, M.

Investigation of potassium metabolism in the central nervous system; distribution of potassium in the brain, cerebellum and spinal cord following nephrectomy in dogs. Glas.Srpske akad.nauka odelj.med. 215 no.9;205-209 1955.

1. Institut de Physiopathologie de la Faculte de Medicine de Beograd.

(KIDNEYS, effect of excision,  
on CNS potassium in dogs)

(POTASSIUM, metabolism,  
CNS, eff. of nephrectomy in dogs)

(CENTRAL NERVOUS SYSTEM, metabolism,  
potassium, eff. of nephrectomy in dogs)

SAHOVIC, K.; DRASKOCI, M.; MIHAILOVIC, Lj.

Investigations on potassium metabolism in the central nervous system; distribution of potassium in the brain, cerebellum, and spinal cord in various pathological conditions. Glas Srpske akad.mauka, odelj.med. 215 no.9:211-219 1955.

1. Institut de Physiopathologie de la Faculte de Medecine de Beograd.

((CENTRAL NERVOUS SYSTEM, metabolism,

potassium, in various dis.)

(POTASSIUM, metabolism,

CNS, in various dis.),

MIHAILOVIC, Lj.; RADOJICIC, B. M.

Studies on physiopathology of insulin hypoglycemia; simultaneous changes of blood and cerebrospinal glucose levels and of blood serum and cerebrospinal fluid potassium level during and following insulin coma. Glas Srpske akad. nauka, odelj. med. 217 no.10: 1-14 1956.

(HYPERINSULINISM, metabolism in,  
blood & CSF sugar & potassium (Ser))  
(POTASSIUM, in blood,  
in hyperinsulinism (Ser))  
(POTASSIUM, in cerebrospinal fluid,  
in hyperinsulinism (Ser))  
(CARBOHYDRATES, in cerebrospinal fluid  
in hyperinsulinism (Ser))

DORDEVIC,Srb.; STANKOVIC,M.; MIHALLOVIC,Lj.

Air pollution and respiratory diseases in the world and in  
our country. Higijena, Beogr. 11 no.2-3:143-150 '59.  
(AIR POLLUTION eff. inj.)  
(RESPIRATORY SYSTEM dis.)

MIHAILOVIC, Lj.T.

Correlation of the parameters of electric current with properties  
of the after discharge evoked by stimulation of the motor cortex.

Acta med. jugosl. 15 no. 3:317-335 '61.

(CEREBRAL CORTEX physiol)

STEFANOVIC, D.; LORENC, Ljubinka; MIHAILOVIC, Lj.

Condensations of isatic acid with ureas, ethyl carbamate and guanidine.  
Glas prir mat SANU 245 no.21:53-72 '61.

1. Faculty of Science, Institute of Chemistry, University of Beograd.

(Isatic acid)  
(Condensation products(Chemistry))

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R001033910006-8

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R001033910006-8"

MIHAJLOVIC, Lj.; KRZALIC, Lj.

Changes in glutamic acid, glutamine, and γ-aminobutyric acid concentrations during postnatal maturation of the cat brain.  
Acta med. Jugosl. 18 no. 2:150-156 '64

1. Institute of Pathological Physiology, Faculty of Medicine,  
University of Belgrade, Belgrade.

L 04495-67 JK

ACC NR: AP6032750 (4) SOURCE CODE: CZ/0077/66/000/010/0433/0436

AUTHOR: Zuffa, A. (Nitra); Wagner, E. (Nitra); Cernek, J. (Nitra); Mihalovic, L. (Nitra)

18

B

ORG: none

TITLE: Study of the behavior of passaged Chinese swine-plague virus

SOURCE: Veterinarstvi, no. 10, 1966, 433-436

TOPIC TAGS: immunology, virus, leukopenia, vaccine, Chinese passaged virus, swine plague

ABSTRACT: Passaged Chinese swine-plague virus was studied after it had been reported to cause no or only minor postvaccine reactions in swine of all ages. It was found that leukopenia occurred in only 3.2%, and temperature reaction in 35.4% of the sucklings and 12.4% of older pigs. More than 30,000 swine were inoculated by the simultaneous method of 2 cc virus and 10 cc serum, and no adverse reaction was observed. Orig. art. has: 2 tables. [WA 50]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 016/ OTH REF: 004/

Card 1/1 e96

MIHAJLOVIC, M.

The stratigraphic and paleontologic study of *Ellipsactinia* of Durmitor and Sinjajevina.

p. 171 (*Glasnik*) Vol. 7, no. 3, 1956, Belgrade, Yugoslavia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

MIHAILOVIC, M.; FAJDIGA, N.; MIHAILOVIC, M.V.

Film dosimetry for determining personnel exposure dose. Acta med.  
jugosl. 16 no.2:141-150 '62.

1. Medicinski fakultet u Ljubljani.  
(RADIOMETRY)

NIKOLIC, B.; NIKOLIC, V.; PAVLOVIC-KENTERA, V.; LAPCEVIC, E.;  
PAVLOVIC, O.; PAUNOVIC, S.; CIRIC, O.; KNEZEVIC, N.;  
MIHAILOVIC, M.

Experimental intoxication of dogs with venoms from Vipera  
berus and Vipera ammodites. II. Biochemical blood changes.  
Vojnosanit. pregl. 20 no.1/2:7-13 Ja-F '63.

1. Veterinarski fakultet u Beogradu, Fiziolski institut i  
Interna klinika, Institut za medicinska istrazivanja u Beogradu.  
(VENOMS) (ERYTHROCYTE COUNT) (BLOOD VOLUME)  
(BLOOD COAGULATION) (BLOOD PLATELETS)  
(CAPILLARIES) (PROTHROMBIN TIME)  
(BLOOD CHEMICAL ANALYSIS)

MIHAJLOVIC, M. Lj.

Preparation of aldehydes by the oxidation of nitriles with lead tetraacetate. 1. Pyridylaldehydes. V. M. Micovic (Miljevitch) and M. Lj. Mihailovic (Univ. of Belgrade, Yugoslavia). Rec. Trav. chim., 71, 972-6 (1952) (in English). — Picotinaldehyde (I), nicotinaldehyde (II), and tricicotinaldehyde (III), all unstable to air and previously obtainable only in poor yield and with considerable difficulty, are conveniently prep'd. from the corresponding pyridine-carboxylic acids. These are esterified, reduced to the pyridylmethanol (IV) with LiAlH<sub>4</sub>, and IV oxidized to the aldehydes with Pb(OAc)<sub>4</sub> (V). Thus, a soln. of 50.2 g. Et pyridinecarboxylate in 200 cc. dry Et<sub>2</sub>O is added, in 40-80 min., to a chilled, vigorously-stirred suspension of 9.6 g. LiAlH<sub>4</sub> in 400 cc. dry Et<sub>2</sub>O. When the addn. is complete, the complex and excess LiAlH<sub>4</sub> are decompd. by addn. of 25 cc. H<sub>2</sub>O. The ppt. of hydroxides is filtered off, extd. twice with abs. MeOH, and the combined org. solns. evapd. Fractionation of the residue gives the following yields (% in parentheses) of IV: 2-pyridylmethanol, bu. 103.6° (70.2) [picrate, m. 158-0° (decompn.); chloroplatinate, m. 179° (decompn.)]; 3-pyridylmethanol, bu. 140-1° (75.7) [picrate, m. 168° (decompn.); benzoate HCl salt, m. 116°]; 4-pyridylmethanol, bu. 141-2° (73.4), m. 40-50° [picrate, m. 130° (decompn.)]. To a hot, dry, stirred mixt. of 53.21 g. V in 200 cc. benzene is added, in 3-5 min., 13.1 g. IV in 60 cc. dry benzene. The brown soln. boils briefly, turns pale yellow or white, and a ppt. of Pb(OAc)<sub>4</sub> seps. Heating is resumed 45 min., after which excess reagent is destroyed with ethylene glycol (until KI starch paper gives neg. test). The

2

Chem

1/2

Micović, U.K. and Mihalović, M. Li.  
cooled mixt. is filtered, and HOAc in the filtrate neutralized  
with aq.  $K_2CO_3$ . Extn. wth.  $PbO$  or  $CaCl_2$ , followed by  
evapn. of the dried solvent and fractionation of the residue  
*in vacuo* under N gives the aldehydes (% yield given in paren-  
theses): I,  $b_p$  70-3° (65.4) [phenylhydrazone, m. 170-7°;  
semicarbazone, m. 203-4° (decomp.); semicarbazone HCl  
salt, m. 220-8° (decomp.)]; II,  $b_p$  80-0° (77.8) (phenyl-  
hydrazone, m. 168°; semicarbazone, m. 214-15°; semi-  
carbazone HCl salt, decomp. 229-30°); III,  $b_p$  90-1°  
(68.4) [phenylhydrazone, m. 178°; semicarbazone, m.  
225-6° (decomp.); semicarbazone HCl salt, decomp. 256-  
8°]. Treatment of III with aminoguanidine hydrochloride  
gives 4-pyridylmethanol guanylhydrazone, m. 194-5°.

Warren Soladar

2/2

PM

MM

MIHALLOVIC, Mihailo I.J.

*(3)*

The reduction of acid amides with lithium aluminum hydride. Vukic M., Milovic and Mihailo I.J. Mihallovit (Serbian Acad. Sci., Belgrade, Yugoslavia). J. Org. Chem. 18, 1190-200 (1953).—The behavior of various acid amides toward LiAlH<sub>4</sub> (I) and the effect of different reaction conditions on the type of reaction products obtained are studied. Adding 1 mole amide in ether to 0.6 mole + 30% excess I in ether at such a rate as to maintain gentle boiling, heating, and stirring the mixt. another hr., adding, with ice-cooling, 15% NaOH (n cc. and 3n cc. H<sub>2</sub>O for n g. I), stirring 20 min., dissolving the residue of the ether soln. in 10% HCl or H<sub>2</sub>SO<sub>4</sub>, making the washed (ether) aq. soln. alk., and extg. with ether give the corresponding amine. In this way, 1-benzoylpiperidine (II) gives 93.3% 1-benzylpiperidine, b.p. 122° (HCl salt, m. 178-9°); picrate, m. 178.6-9°; 1-acetylpyridine gives 92.3% 1-ethylpyridine, b. 128-8° (picrate, m. 168-9°); 1-acetyl-1,2,3,4-tetrahydroquinoline gives 90.6% 1-Et analog, b.p. 130-2° (picrate, m. 117-18°); BzNEt<sub>3</sub> gives 91.9% PhCH<sub>2</sub>NEt<sub>3</sub>, b.p. 84-6° (picrate, m. 120°); N,N-diethylnicotinamide (III) gives 84.1% 3-(diethylaminomethyl)pyridine (IV), b.p. 108-9° (di-HCl salt, m. 184-5°). 1-Benzoyl-1,2,3,4-tetrahydroquinoline (V) gives 52.9% PhCH<sub>2</sub>OH (VI), b.p. 92-2.5° (phenylurethan, m. 78°), 38.3% 1-benzyl-1,2,3,4-tetrahydroquinoline (VII), b.p. 160°, needles, m. 36.5-7°, and 45.9% 1,2,3,4-tetrahydroquinoline (VIII); b.p. 121-2° (HCl salt, m. 180-1°); when the reduction is carried out at 5°, 73.5% VI, 21.4%

VII, and 72.4% VIII are obtained. Reduction of PhNHAc gives 92.0% PhNH(I), b.p. 137 b. 8°; N-cyclohexylacetamide (6.0 g.) and 2.4 g. I in 450 cc. ether give 88% N-ethylcyclohexylamine, b. 160-42° (phenylurea deriv., m. 124-5°); N-benzoylcyclohexylamine gives 80.5% N-cyclohexylbenzylamine, b.p. 143-4° (phenylurea deriv., m. 121 2°). Heating 8.6 g. 1-benzoylpyrrole (IX) with 1.06 g. I in 250 cc. ether gives 85.0% pyrrole (X), b. 126-31°, and 80% VI; 1-acetylpyrrole gives 82.0% X; 1-benzoylindole (XI) gives 92.5% VI and 80.5% indole (XII), b.p. 122.5-4°, m. 51°; 1-acetylindole gives 93.1% XII. Refluxing 4.9 g. 9-benzylicarbazole (XIII) 1 hr. with 0.6 g. I in 230 cc. ether gives 90% carbazole (XIV), m. 237-9°, and 80.4% VI. PhCH<sub>2</sub>CHCONPr<sub>2</sub> gives 29.8% PhCH<sub>2</sub>CHCl<sub>2</sub>OH, b.p. 140-3° (phenylurethan, m. 90-90.5°). Adding over a period of 15 min. 0.34 g. I in 34 cc. ether at -15° to 0.38 g. BzNEt<sub>3</sub> in 120 cc. ether and stirring the mixt. 0.5 hr. at -15° and 1 hr. at 20° give 36.6% BzH, 11.0% VI, and 28.2% unchanged BzNEt<sub>3</sub>, b.p. 152-3°; similarly, II gives 17.9% VI, 47.1% BzH, and 20.8% unchanged II; V gives 13.7% VI and 49% BzH; III, 12.9% nicotinaldehyde, b.p. 83-7° [thiosemicarbazone, m. 213-14° (decompn.)], 5.1% IV, 28% 3-pyridinemethanol, b.p. 138-43° (picrate, m. 158°), and 24.0% unchanged III. Adding 8.86 g. IX in 100 cc. ether to 0.38 g. I in 38 cc. ether at -10° and stirring the mixt. 0.5 hr. at -10° and 1 hr. at 20° give 82.1% X and 54.1% BzH; at 0°, 74.5% X and 51.7% BzH are obtained. Similar reduction of 8.85 g. XI gives 55.5% BzH; at 0°, 53.5% BzH. Adding 0.17 g. I in 17 cc. ether to 4.9 g. XIII in 150 cc. ether at -15° give 60% BzH and 93.3% XIV; at 0°, 55% BzH and 90% XIV are formed. Heating 16.7 g. XIV and 17.5 g. PhCH<sub>2</sub>CHCOCl 1 hr. at 185-95° gives 60.3% 9-cinnamoylcarbazole, m. 90.5-7° which, reduced at -10°, gives 89.8% XIV and 45.2% PhCH<sub>2</sub>CHO (XV) (phenylhydrone, m. 166-7°); at 0° 89.8% XIV and 45% XV are formed. A mechanism is proposed to explain the course of these reductions.

F. E. Brauns

MF

Mihailović, Mihailo J.

Lithium aluminum hydrides in organic chemistry. Vols. I  
M. Mihailović and Mihailo J. Mihailović (Univ. Belgrade),  
Serbian Acad. Soc. MONOGRAFIJE 237, Sect. Nat. Sci. and  
Math. No. 9, 1-193(1955).—Review with 1722 references.  
B. H. [Signature] (1)

MIHAILOVIC M.

1

5  
1-22(NB)

Oxidation products of 2,4-dihydroxyquinoline and related compounds. Gjordje Stefanovic, Petar Piekuski, and Mihailo Lj. Mihailovic (Inst. Chemistry, Beograd, Yugoslavia). *God. Nauk. Drustva, Beograd* 21, 157-62 (1958) (English summary 162-3). - The oxidn. of 2,4-dihydroxyquinoline (I) with 3% KMnO<sub>4</sub> in aq. soln. with or without KOH did not yield, as previously reported by Meyer and Heimann (*CA* 30, 7114\*), 2,4-dihydroxypyridine-5,6-dicarboxylic acid (II), but only *o*-carboxyoxanilic acid (III) as the main product. The yield of III depended on the ratio of oxidizing agent to I; with an amt. of O equiv. to 9 O/mole I, the yield of III was 20.5%, with an amt. of 6 O it was increased to 40%. The result could be expected from consideration of the mol. of I; the pyridine nucleus in I, being heavily substituted, was much more susceptible to attack by the oxidizing agent than the unsubstituted benzene ring, and the normal oxidn. product should thus have been a substituted *o*-aminobenzoic acid rather than a pyridine-dicarboxylic acid. The Me 2,4-dihydroxyquinolinecarboxylate, prep'd. according to Koller (*CA* 21, 2476), was also oxidized with KMnO<sub>4</sub> in aq. soln. in order to ascertain the position of the ester group. The only product isolated was again III (55%), a further evidence that the carbo-methoxy group was attached to C-3 of I.

R. Zhivadinovich ..

MIHALLOVIC, M. L.

Distr: 4EPC( )

Preparation of symmetrical bisamides containing condensed, heterocyclic, and alicyclic rings in the aldehyde group. II. Gjorgje Stefanovic, Jelena Bojanovic, Milanka Corbic, and Milivoj Lj. Mihailovic (Prirodno-mat. fak., Belgrade, Yugoslavia). *Crainik Khem. Drushtvo, Beograd* 22, 29-42 (1957); cf. *C.A.* 52, 10350e.—Several new bisamides were synthesized by condensing acetamide (I) and benzamide (II) with various aldehydes contg. heterocyclic and alicyclic rings in the  $\alpha$ -position: 3-thenylidene-*N,N'*-bisacetamide, m. 231°; 3-thenylidene-*N,N'*-bisbenzamide, m. 213-13°; 2-pyridylmethylene-*N,N'*-bisbenzamide, m. 211°; 3-pyridylmethylene-*N,N'*-bisacetamide, m. 219°; and 4-pyridylmethylene-*N,N'*-bisbenzamide, m. 217-18°; 3-pyridylmethylene-*N,N'*-bisacetamide, m. 235-6°; 1-acetyl-3-indolylmethylene-*N,N'*-bisacetamide, m. 207°; 1-acetyl-3-indolylmethylene-*N,N'*-bisbenzamide, m. 254-5°; cyclohexylidene-*N,N'*-bisacetamide, m. 279.5°; cyclohexylidene-*N,N'*-bisbenzamide, m. 250° (decompn.). Condensation of pyrrole-2-carboxaldehyde with I and II did not yield the expected bisamides. The new bisamides were prepd. in 27-99% yield by heating the aldehyde and amide on a water bath in the presence of  $\text{Ac}_2\text{O}$  or by directly heating the starting products without  $\text{Ac}_2\text{O}$  at 160-180°. At the same time a study was made of the effect of heating period on the yield of bisamide in the condensations of aldehydes and acid amides in the presence of  $\text{Ac}_2\text{O}$ . With aliphatic aldehydes it was found that the yields were best after heating the mixt. 3-4 hrs. Cinnamaldehyde behaved similarly whereas with cyclohexanecarboxaldehyde the yields were best after 1.5 hrs. heating. With aromatic aldehydes, however, optimum heating periods were somewhat longer (7-10 hrs.). Z. Nikic

MIHAJLOVIĆ, M. I.

Distr: 4E2c(j)

Reactions of bisamides. XII. Condensations of aromatic bisamides with phenylacetone, barbituric acid, and 2,5-dioxopiperazine. George Stefanović, Petar Prešatki, and Mihailo Lj. Mihajlović. Prirodno-mat. fak., Belgrade, Yugoslavia. Časopis. Khim. Drusitev, Beograd 22, 113-20(1957); cf. C.A. 52, 162784.—A study was made of the reactions of *N,N'*-benzylidenebisacetamide (I) with phenylacetone (II), barbituric acid (III), and 2,5-dioxopiperazine (IV). Attempts to condense II with I in glacial AcOH, in Ac<sub>2</sub>O, in pyridine, or in sealed tubes, failed. Only after prolonged heating at 185° did I and II condense to give 2,3-diphenylacrylonitrile (11%). III, however, readily reacted with I to give 5-benzylidenebarbituric acid, the reaction taking place in glacial AcOH (yield 91%) by direct heating of the starting materials, and in Ac<sub>2</sub>O (61%). Only one methylene group of IV reacted with I in Ac<sub>2</sub>O to give 20% 3-(*o*-acetylaminobenzyl)-1,4-diacyl-2,5-dioxopiperazine (V), light brown, m. 190.5° (EtOH). Attempts to condense I and IV in AcOH or by heating without any solvent were unsuccessful. By partial alk. hydrolysis of V, a new substituted dipeptide was obtained in quantitative yield: HO<sub>2</sub>CCH<sub>2</sub>NAcCOCH(NHAc)CH<sub>2</sub>Ph, m. 218° (decompn.) (water).

2/15

ccw

5  
1/2, (1/3)

MIHAEL CIVIC, M. L.T.

Reactions of bisamides. X. Condensations of *N,N'*-  
(arylmethylene)bisamides with phenols and naphtols.  
Lj. Stefanović, J. Bošnjović, V. Vandiel, Z. Maksimović,  
and M. L. Mihailović (Univ. Beograd, Yugoslavia).  
*Rec. trav. chim.* 76, 243-50 (1957) (in English); cf. *C.A.* 50  
15590f.—Heating *N,N'*-(arylmethylene)bisamides with phenois yields  $\alpha$ -acylamidobenzyl-substituted phenols (also obtained by heating *BzI* and an amide with the phenol). The substituent enters the  $\alpha$ -position (or para if both  $\alpha$ -positions are occupied); although  $\beta$ -naphthol (I) does not,  $\beta$ -naphthol (II) reacts normally, the substituent entering the 1-position. Heating 4.12 g.  $PtCl_2(NH_4)_2$  (III) with 1.89 g. PhOH 4 hrs. at 120-130° (unless otherwise indicated), this temp., and period of heating are used throughout gives a viscous red-brown product which is taken up in 250 ml. EtOH, treated with C, filtered hot, and the filtrate dild. with 500 ml. H<sub>2</sub>O pptg. 2.0 g. yellow powder, m. 145° which, after 4 reppts., yields  $\alpha$ -PhCH(NHAc)<sub>2</sub>C<sub>6</sub>H<sub>4</sub>OH (IV), m. 171°. Heating 0.04 mole BaH with 0.02 mole each of AcNH<sub>2</sub> and PhOH gives 2.8 g. crude product, m. 180-190°, from which IV is obtained by pptn. with H<sub>2</sub>O from EtOH as before. Heating ( $\alpha$ -HOCH<sub>2</sub>)<sub>2</sub>ClPb with AcNH<sub>2</sub>, however, does not yield IV. The product formed by heating 4.13 g. III with 2.72 g. PhOAc taken up in C<sub>6</sub>H<sub>6</sub> and the soln. dild. with petr. ether gives 3.42 g. crude IV acetate (V), m. 120°, raised to 142-3° by repeated pptns.; 1.72 g. crude V, m. 17-20°, was also obtained by heating a mixt. of 2.72 g. PhOAc, 4.12 g. III, and 1.72 g. AcNH<sub>2</sub>. Heating 0.04 g. V with 0.12 g. KOH in 50 ml. H<sub>2</sub>O 2 hrs. at 100°, cooling, acidifying with 10% HCl, and dild. with H<sub>2</sub>O gives 0.87 g. crude IV, m. 186°. The hard red-brown resinous product formed by heating 0.02 mole each of  $PtCl_2(NH_4)_2$  (VI) and PhOH dissolved in glacial HOAc and treated with H<sub>2</sub>O gives 4.2 g. yellow powder, m. 118°, which taken up in EtOAc leaves a small amt. of colorless

1/3

*STEFANOVIC, G.J., BOJANOVIC, J., VANDJEL, V.*

cryst. material (m. 272°, unidenified); the EtOAc soln. stripped and the residue recrystd. several times from EtOH gives *o*-PhCH(NH<sub>2</sub>)C<sub>6</sub>H<sub>4</sub>OH (VII), m. 214°. Heating 0.02 mole each of BzNH<sub>2</sub>, BzH, and PhOH yields 2.1 g. crude prodn, m. 108°, from which VII may also be obtained by crystl. from EtOH. VI (0.0 g.) heated 4 hrs. at 200-5° with 3.06 g. PhOBz and the crude product ext. with EtOAc leaves 2.6 g. unreacted VI. The EtOAc ext. stripped and the residue taken up in C<sub>6</sub>H<sub>6</sub> and allowed to stand gives 1.3 g. unreacted BzNH<sub>2</sub>, m. 122° (from H<sub>2</sub>O); addition of petr. ether to the C<sub>6</sub>H<sub>6</sub> soln. yields 1.0 g. yellow powder, m. 107°, from which VII benzal (VIII), m. 175°, is obtained by 4 recrys. from 90% EtOH. Similarly, 0.02 mole each of BzNH<sub>2</sub>, BzH, and PhOBz after 4 hrs. at 200-5° yield 0.62 g. yellow solid, m. 110°, whose m.p. could not, however, be raised above 168°, although the m.p. of this purified product was not depressed by mixt. with VIII. Supos. of 0.5 g. VIII gives 0.35 g. crude VII, m. 103° (from EtOH). Heating 4.0 g. III with BzH and AcNH<sub>2</sub> gives 4,2-Me(PkCHNHAc)C<sub>6</sub>H<sub>4</sub>OH, pale yellow powder pptd. from Et<sub>2</sub>O with petr. ether, m. 163-4°. The red resinous product obtained by heating 4.12 g. III with 2.44 g. 2,4-xylenol (IX) dissolved in EtOH to which 10% aq. NaOH has been added to pH 9-10 and poured into excess 10% HCl gives 4.0 g. pale yellow powder; reppn. in the same way or by addn. of petr. ether to a C<sub>6</sub>H<sub>6</sub> soln. gives 4,6,2-Me<sub>2</sub>(PkCHNHAc)C<sub>6</sub>H<sub>4</sub>OH, m. 150°, also obtained by heating quinoliz. base, cf. IV, BzH, and AcNH<sub>2</sub>. Similarly, 2,4-xylenol heated with III or with BzH and AcNH<sub>2</sub> gives 3,6,4-Me<sub>2</sub>(PkCHNHAc)C<sub>6</sub>H<sub>4</sub>OH, m. 148°, in low yield. III does not react with mesitol. Heating 4.12 g. III with 2.88 g. II-3 min. at 170-5° gives 5.40 g. solid product, m. 117°, which decolorized with C in EtOH and recrystd. from EtOH/glacial HOAc yields 1,2(PkCHNHAc)C<sub>6</sub>H<sub>4</sub>OH.

STEFANOVIĆ, G.J., BOJANOVIC, J., VANDJEL, V.

needles, m. 241°, also obtained from II, BzH, and AcNH. II and VI (or BzH and BzNH<sub>2</sub>) yield 1,2-(PbCHNH<sub>2</sub>)C<sub>6</sub>H<sub>5</sub>O<sub>2</sub>H, needles, from aq. EtOH, m. 241°. Heating 0.02 mole each of I and III under N and treating the solid product with EtOAc leaves 0.45 g., unreacted III undissolved; EtOAc stripped from the ext. and the dark brown residue extd. with Et<sub>2</sub>O leaves an addnl. 0.63 g. III; the Et<sub>2</sub>O soln. evapd., the residue (8.55 g.) dissolved in 10% aq. KOH, and dil. HCl added with stirring ppts. 2.55 g. crude (1,4-HOC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CHPh (X), m. 203° (ppts. from EtOH-HOAc with H<sub>2</sub>O or from Et<sub>2</sub>O with petr. ether); crude X (1.93 g., m. 248°) is also obtained by heating 2.12 g. BzH with 5.76 g. I. These ( $\alpha$ -amido-benzyl)phenols give dark green colors with FeCl<sub>3</sub> and dissolve readily in dil. alkali to bright yellow solns. from which the unchanged amidophenols are ppzd. by acids; attempts to hydrolyze these products to the corresponding aminophenols were unsuccessful. David R. Horowitz

STEFANOVIC, Gj. [Stefanovic, G.]; MIHAJLOVIC, M.Lj.; LORENC, Lj.;  
MAMUZIC, R.I.

Anhydrobiisatic acid (6, 12-oxa-5, 6, 11, 12-tetrahydrophenhomazine-  
6, 12-dicarboxylic acid). Bul sci nat SAN 25 no.7:111-115 '59.

(EEAI 9:12)

(Anhydrobiisatic acid)

STEFANOVIC, Gj.[Stefanovic,G.]; PAVICIC-WASS, M.; LORENC, Lj.;  
MIHAILOVIC, M.Lj.

Condensation of isotic acid with diketones. Bul sci nat SAN 25  
no.7:121-130 '59. (EEAI 9:12)

1. Faculty of Science, Institut of Chemistry, Beograd.  
(Ketones) (Isatin)

STEFANOVIC, D.; MIHAILOVIC, M.I.J.; LORENC, Ljubinka.; MAMUZIC, R.I.

Anhydrobiiisatic acid (6,12-aza-5,6,11,12-tetrahydrophenhomazine-  
-6,12-dicarboxylic acid). Glas Prir mat SANU 241 no.18:1-19 '60.

STEFANOVIC, D.; PAVICIC-WASS, M.; LORENC, Ijubinka; MIHAJLOVIC, M.Lj.

Condensation of isatic acid with diketones. Glas Prir mat SANU  
241 no.18:41-51 '60.

1. Institute of Chemistry of the Faculty of Science of the  
University in Beograd

STEFANOVIC, D.; LORENC, Ljubinka; MIHAILOVIC, Mihailo Lj.

Condensations of isatic acid with carbamides, ethyl carbamate, and guanidine. Glas SANU 12 no.2:188 '60 [subl., '62].

1. Dopisni član Srpske akademije nauka i umetnosti,  
Beograd (for Stefanovic).

BORISAVLJEVIC, Ruza; BOSNJAK, Jovan; MAMUZIC, Rastko I.; MIHALLOVIC,  
Mihailo Lj.

N-benzoylphthalimide. Pt. 2. Glas Hem dr 27 no.5/6:299-311 '62.

1. Institute of Chemistry, Faculty of Sciences, Beograd.

BOSNJAK, Jovan; MAMUZIC, Rastko I.; MIHAILOVIC, Mihailo Lj.

$\alpha$ -benzoylphthalimide. Pt. 3. Glas Hem dr 27 no.5/6:313-319 '62.

1. Faculty of Sciences, Institute of Chemistry, Beograd.

BORISAVLJEVIC, Ruza; MAMUZIC, Rastko, I.; MIHAILOVIC, Mihailo Lj.

N-benzoylphthalimide, Pt.4. Glas Hem dr 27 no.7/8:389-395 '62.

1. Faculty of Science, Institute of Chemistry, Beograd.

L 15600-66  
ACC NR: AP6008209

SOURCE: BU/0011/65/018/004/0339/0342

AUTHOR: Trendafelov, D.; Mihailova, D.; Paskalev, N.

31 B

ORG: Pharmaceutic Institute, Sofia

TITLE: Investigation of the system In<sup>3+</sup>-Na<sup>+</sup>-(K<sup>+</sup>)-OH<sup>-</sup>-Cl<sup>-</sup>-H<sub>2</sub>O

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 4, 1965, 339-342

TOPIC TAGS: indium compound, physical chemistry property, solubility, ionization

ABSTRACT: The problem of the composition, properties and, in particular, solubility of basic metal salts that do not dissolve easily cannot be satisfactorily solved by means of preparations or by the classical methods of physico-chemical analysis. The difficulties stem primarily from the circumstance that these basic salts are obtained as exceedingly fine dispersed precipitates and that it is not possible to isolate them as preparations. The composition and properties of a basic salt undoubtedly depend on the composition of the system in which the salt is precipitated. The authors assumed that the heterogeneous system, precipitate of basic salt

Card 1/3

2

L 13600-66  
ACC NR: AP6008209

- saturated solution, cannot be completely characterized by the activities of the metal cations participating in the composition of the basic hydroxide, hydroxyl and acid anions in the sense that the cation which is introduced with a 'neutral electrolyte' will produce a specific effect on these activities. Inasmuch as the heterogeneous system can be studied when introducing a 'neutral electrolyte' with a selected cation, the data obtained will characterize precisely the action of this cation, other conditions being the same. One may also assume from more general considerations that the precipitate obtained at first should have a composition close to  $\text{In}(\text{OH})\text{Cl}_2$ , i.e., a basic salt richest in  $\text{Cl}^-$ . Proceeding from the above assumptions, the systems  $\text{In}^{3+}-\text{Na}^+-\text{Cl}^--\text{OH}^--\text{H}_2\text{O}$  and  $\text{In}^{3+}-\text{K}^+-\text{Cl}^--\text{OH}^--\text{H}_2\text{O}$  were experimentally investigated by applying the method given in paper by N. V. Akselrud and V. B. Spivakovskiy (ZhNKh, 1958, 1958, No 8, 1748). Four series of indium trichloride solutions were prepared by dissolving the metal indium (purity 99.95 p. c.) in hydrochloric acid p. a. (Merck). The study of the spures of orthogonal projections of isoconcentrations of the above mentioned heterogeneous systems five minutes after their preparations show that the curves differ radically in character depending on the nature of the cation of the 'neutral electrolyte' used. The effect produced by the cations of the other metals belonging to the alkali

Card 2/3

L 15600-66  
ACC NR: AP6008209

group is another problem warranting attention. The paper was submitted by N. Penchev, Corresponding Member Bulgarian Academy of Sciences, 14 December 1964. Orig. art. has 4 figures and 2 formulas. [JPRS]

SUB CODE: 07 / SUBM DATE: none / OTH REF: 001 / Sov REF: 009

LB  
Card 3/3

GARTON George Alan M.F.A. M.A. M.Sc. M.Phil.  
Lecturer

Seminar on the Political Economy of Development  
34-325-100

The Kuwait Research Institute, London, organized by the  
British Foreign Office, the Economic Commission for Europe,  
National Sciences and Materials Council, and the M.  
Faculty of Technology, Cambridge, University of Cambridge,  
Nov. 1981. See also 34-325-100